



ABOVE • Malaya Reid was one of hundreds of children getting their faces painted on NIH's Earth Day-Take Your Child to Work Day. See story on this page.

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Event Keeps Getting Better

Earth Day-Take Your Child to Work Day Sets Records

By Valerie Lambros

It was nearly impossible to miss the droves of children scampering about on Apr. 22, the fourth year in a row that NIH has combined its Earth Day and Take Your Child to Work Day celebrations. It was also hard to miss the smiles on painted faces, the joy of youngsters as they took hold of their very own tree seedlings or the squeals



Savannah Kreider (daughter of Stephanie Kreider, NIAMS) and Cpl. Brian Sims share a laugh.

of delight as children experimented with a Geiger counter or tried on police uniforms.

And while children were surely impressed by any one of the 90 activities available on that day, what's truly remarkable is the day in numbers.

For starters, the NIH community, including the Bethesda campus and all its satellite locations, welcomed more than 3,300 children. That's almost 500 more than attended last year.

Combined with all the Earth Day events

SEE **YOUNGSTERS**, PAGE 8

Pharmacogenomics and Alcoholism

Why Meds Work for Some People, but Not for Others

By Valerie Lambros

You can add alcoholism to the growing list of conditions that may be addressed with medication, depending on a patient's genetic topography.

That was the message delivered recently in a lecture by NIAAA clinical director Dr. Markus Heilig, who studied the effect—or lack thereof—of the drug naltrexone (an opioid antagonist commonly used in the treatment of drug addiction) on a person's wired desire to reach for a drink. It appears as though people struggling with alcoholism for whom naltrexone is an effective



Dr. Markus Heilig

From Bedside to Bench and Back

Progeria Research Workshop Celebrates NIH-Supported Science

By Stephanie Dutchen

NIH staff and grantees were in abundance at the Progeria Research Foundation's 10th anniversary workshop in Boston. Basic researchers and clinicians alike gathered to share their latest findings on Hutchinson-Gilford progeria syndrome, a fatal childhood disease that resembles accelerated aging.

Children with progeria remain small, lose their hair and fat, suffer from stiff joints and have myriad other symptoms that seem to mix developmental and aging problems. They develop cardiovascular disease and typically die of heart attacks and strokes at an average age of 13. There is no cure. But the disease doesn't affect their mental or social development; they think and act like normal kids.

Progeria occurs in an estimated 1 in 4 million births and just 63 children in the world are known to have it. It's caused by a single nucle-

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SEE **PROGERIA**, PAGE 6



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briefs

38th Annual APAO Asian Heritage Food Fair

All are welcome to attend a special luncheon program on Wednesday, May 26 to celebrate Asian & Pacific Islander American Heritage Month. Sponsored by the NIH Asian & Pacific Islander American Organization, this event will be held from 11:30 a.m. to 1:30 p.m. on the patio of Bldg. 31A and will feature the sale of ethnic food from local restaurants including Shanghai Café, Lumpia Pansit Atbp, Delhi Dhaba and Ba Le and Korean Korner. A portion of the proceeds will benefit the NIH Children's Inn; last year the event donated \$500. Also featured will be origami and calligraphy demonstrations, Hindi writing, sari wrap demonstrations, R&W line dancing, a Filipino dance performance and more. Representatives will be on hand from the NIH Federal Credit Union, Asian American Health Initiative, Montgomery County DHHS, NIH Bone Marrow Registry and Organ Donor Program, Rockville Go Club, NIH APAO and more. For more information, call Aaron Bell at (301) 451-7898.

Camp Fantastic BBQ Set, June 15

Lunch will be served hot off the grill for the annual Camp Fantastic Barbecue on Tuesday, June 15 on the Bldg. 31A patio. Your \$10 ticket buys your choice of two sandwiches (pulled pork, pulled chicken, hotdog), chips, coleslaw, a drink and ice cream, as well as a ticket for the door prize drawing. There will also be live music, country line dancing, popcorn and games. Tickets will be on sale at all R&W stores as well as onsite. Everyone is welcome. Proceeds benefit the camp and NIH charities. June 16 is the rain date. For more information, call the NIH Recreation & Welfare Association, (301) 496-6061.

Career Symposium Set, May 18

The NIH Office of Intramural Training & Education invites all NIH graduate students and postdoctoral trainees—both basic scientists and clinicians—to participate in the NIH Career Symposium on Tuesday, May 18 at the Natcher Conference Center from 8 a.m. to 4:30 p.m. The symposium provides an opportunity for fellows and graduate students to learn about scientific career options and to explore factors that lead to career success. Dr. Kathie Olsen, senior advisor to the National Science Foundation, will keynote this all-day event.

A list of sessions and speakers and a registration link are posted at www.training.nih.gov. This event is organized by OITE, FELCOM and the Graduate Student Council.

NIH Goes PaperFree on May 25

On Tuesday, May 25, NIH employees will be challenged to go paperless on NIH's PaperFree Day. This means, see if you can make it through an entire workday without printing or photocopying a document. This doesn't mean simply postponing printing out your emails, reports and data until May 26. The challenge is to "think before you print."

Even if all paper was recycled, there would still be a need for paper to be made from virgin resources, as individual paper fibers can only be recycled a finite number of times (generally 5-10). Paper waste prevention reduces the environmental impacts associated with both paper manufacture and paper recycling.

You probably know that saving paper saves trees, but did you know that saving paper also saves energy, water and other resources? Eleven percent of all energy used in U.S. manufacturing goes to the manufacture of paper.

A recent study by Xerox showed that 45 percent of the paper printed in offices ends up in the trash by the end of the day—that should give us all pause.

For more information on PaperFree Day, visit www.nems.nih.gov.



NEI's Caspi Receives Friedenwald Award

Dr. Rachel Caspi, chief of the immunoregulation section in the Laboratory of Immunology, NEI, recently received the 2010 Friedenwald Award, which is presented each year for outstanding contributions to basic or clinical research

in ophthalmology by the Association for Research in Vision and Ophthalmology. Caspi was honored for her "fundamental and widely influential contributions to ocular and systemic immunology, including the understanding of uveitis as an autoimmune disease, the development and thorough characterization of animal models of autoimmune uveitis, and the nature of autoimmunity." Her research interests include cellular and molecular mechanisms involved in T cell-mediated, tissue-specific autoimmunity. She is focused on understanding the development and maintenance of self-tolerance to immunologically privileged retinal antigens and on defining the processes that lead to their pathological breakdown. Her goal is to use this knowledge for designing new and effective strategies for immunotherapy. Caspi's approaches and conclusions can be generalized to other tissue-specific autoimmune diseases.

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Halamka To Give Leiter Lecture

Dr. John D. Halamka will give the 2010 Joseph Leiter NLM/Medical Library Association Lecture, Wednesday, May 26. It will take place at 2 p.m. in Lister Hill Center auditorium, Bldg. 38A.

Halamka is chief information officer of both Beth Israel Deaconess Medical Center and Harvard Medical School. In his role at the hospital, he is responsible for all clinical, financial, administrative and academic information technology serving 3,000 doctors, 14,000 employees and 2 million patients. At Harvard Medical School, he oversees all educational, research and administrative computing for 18,000 faculty and 3,000 students. He is also a practicing emergency physician.

In addition, Halamka participates in several state and national committees. He is chairman of the New England Healthcare Exchange Network, which oversees clinical and administrative data exchange in Massachusetts. He is also the current chair of the U.S. Healthcare Information Technology Standards Panel and co-chair of the HIT standards committee, with the goal of coordinating the process of electronic standards harmonization among stakeholders nationwide.

The lecture will be recorded and broadcast live on the web to MLA members and the NIH community at <http://videocast.nih.gov>.

MIT's Langer To Speak on Biomaterials, Biotechnology

Dr. Robert Langer will deliver a talk titled "Biomaterials and Biotechnology: From the Discovery of Angiogenesis Inhibitors to the Development of Drug Delivery Systems and the Foundation of Tissue Engineering," on Wednesday, May 26 at 2 p.m. in Lipsett Amphitheater, Bldg. 10. His is the first of four talks in this year's NIDCR Seminar Series "From Basic Research to Therapy—The Latest Frontier."

Langer will discuss his research on the development of nanoparticle- and microchip-based controlled drug delivery systems, some of which are being tested for treating cancer and other diseases. He will also describe approaches for creating novel biomaterials to treat diseases of the central nervous system. Finally, he will talk about tissue engineering technologies being developed by his laboratory for the regeneration of damaged cartilage, skin and spinal cord.

Langer is the David H. Koch institute professor at the Massachusetts Institute of Technology. He has received honorary doctorates from Harvard University, Mt. Sinai School of Medicine and Yale University, among others. In 2002, *Forbes* magazine selected him as one of the 15 innovators across the world who will reinvent our future. Langer has published more than 1,000 articles and has approximately 750 issued and pending patents. He holds several grants from NIH institutes, including NIDCR, NCI and NIBIB.

Sign language interpretation will be provided. For more information, or for reasonable accommodation, contact Mary Daum, (301) 594-7559, and/or the Federal Relay (1-800-877-8339).

The lecture will be videocast live at <http://videocast.nih.gov>.



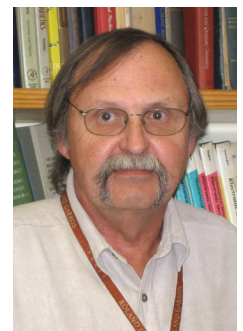
Two NIH'ers Named to National Academy

Two NIH scientists are among 72 new members and 18 foreign associates from 14 countries elected to the National Academy of Sciences in recognition of distinguished and continuing achievements in original research.

Dr. Daniel Kastner (top) is chief, Genetics and Genomics Branch, and clinical director and director of translational research, Intramural Research Program, National Institute of Arthritis and Musculoskeletal and Skin Diseases.



Dr. Attila Szabo (below) is chief, section on theoretical biophysical chemistry, Laboratory of Chemical Physics, National Institute of Diabetes and Digestive and Kidney Diseases.



The National Academy of Sciences is a private organization of scientists and engineers dedicated to the furtherance of science and its use for the general welfare. It was established in 1863 by a congressional act of incorporation signed by Abraham Lincoln that calls on the academy to act as an official advisor to the federal government, upon request, in any matter of science or technology.

HEILIG

CONTINUED FROM PAGE 1

Right:

Heilig says, “Over time, the addicted brain transitions from ‘reward craving’ to ‘relief craving.’ If you keep drinking, it will push your brain into a pathological pattern of anxiety.”

PHOTOS: BILL BRANSON

treatment possess a particular genetic variant. That variant is worked on by the drug to stymie its push to make the body want alcohol.

This could be huge news for clinicians who work daily with alcoholics desperate to get sober, something Heilig said would be welcome in the field.

“It’s difficult not to be impressed by the progress that’s been made in basic neuroscience in the last 40 years,” he said. “There’s been an explosion of understanding of brain function, but you walk out into the clinic and it’s as if time stood still.”

While effective in its own right, much of today’s current treatment emphasis has been on behavioral therapy, with clinicians seeking to integrate medication as part of treatment, but never really knowing why a drug could work wonders in some patients and not help others.

Heilig, who studies alcoholism and anxiety disorders as chief of the Laboratory of Clinical and Translational Studies, felt compelled to unravel this mysterious disparity in effectiveness. He started with a simple theory.

“If patients respond differently,” he said, “maybe they are different [physiologically]. In the age of the mapped genome and personalized medicine, this is not difficult to imagine.”

Heilig explained that the brain is similar to a parliament, with the voting of pleasure receptors and cleared or blocked pathways determining a yes or no vote.

“That voting will determine whether or not the behavior is turned on,” he said. “It’s even more complex than the U.S. Congress.”

Research shows that in the early phases of alcoholism, people drink because it is pleasurable—the body tells the mind that drinking is rewarding. Heilig wanted to determine why the medicinal blunting of the circuitry that rewards intake of alcohol worked for some patients but not for others. He decided to focus on male subjects because alcoholism in men and women tends to express differently and studies show naltrexone works much better in men than in women.

Heilig studied mice, rats and rhesus macaques and, going on a hunch that genetics are at work in this equation, he turned up some curious results. He found that in people who possess a



specific genetic variant, this chemical pleasure reward is much more pronounced because when alcohol is consumed, their bodies release a swell of dopamine that heightens the physical connection to drinking. This intense reward only prompts the body to want more alcohol, continuing the cycle and strengthening the chemical connection. In people without the variant, their bodies’ dopamine release was nonexistent.

In cases of people with the mutation, naltrexone works to block the reward cascade of dopamine following the consumption of alcohol. With no dopamine reward, the body has less reason to want a drink, so the patient can more easily walk away from alcohol. In people without this genetic switch flipped on, naltrexone is not an effective intervention tool.


Unfortunately, this finding is only one part of the puzzle. While naltrexone can help many people in the early stages of addiction when the body still believes it’s being rewarded for drinking, it isn’t nearly as effective once the brain has turned a corner in its addiction.

“Over time, the addicted brain transitions from ‘reward craving’ to ‘relief craving,’” Heilig said. “If you keep drinking, it will push your brain into a pathological pattern of anxiety.”

Instead of the body wanting alcohol because it feels good, it wants it because not having alcohol will make the body feel bad. That’s what scientists call a “negatively reinforced drug craving”—the body must have the chemical fix or it will suffer withdrawal symptoms.

In tests, naltrexone isn’t particularly effective in helping with the relief stage, nor is it able to help curb the sense of anxiety that is felt by all alcoholics when placed under stress. This anxiousness often causes people to relapse into drinking to relieve anxiety.

Heilig said there are currently several stress-related mechanisms that seem promising for inclusion in treatment strategies, though none is quite ready for prime time. He said that like human beings themselves, each treatment plan will be as individual as the patient.

“There will never be a silver bullet,” he predicted. 

NIH Scientists Bring Fun, Facts to Brain Awareness Week

Students shrieked at the idea of holding a brain in their hands, then excitedly lined up to do just that at NIH's Brain Awareness Week held recently at the National Museum of Health and Medicine at Walter Reed Army Medical Center.

"It was so cool to touch a real brain, but it felt really weird," said Sean Carlson, 13, of Blessed Sacrament School, as he removed the gloves he had donned before gingerly handling the preserved brain.

Yet another group of students listened as an actor with an uncanny resemblance to Albert Einstein explained in a heavy Swiss accent that larger brains do not necessarily correlate to larger IQs.

"Ja, when I died they took my brain and studied it. In fact, my brain was a little smaller than most but it had many folds and neurons," he said. "I was curious and determined—that's more important than what the IQ is."

Now in its 15th year, the annual event founded by the Dana Alliance for Brain Initiatives introduces the wonders of neuroscience to hundreds of local elementary, middle and high school students. As in past years, NIH scientists teamed up with experts in their communications offices to produce highly interactive presentations that combined fun with facts.

Participants included the National Institute of Mental Health, the National Institute of Alcohol Abuse and Alcoholism, the National Institute of Neurological Disorders and Stroke, the National Institute on Drug Abuse and the National Institute on Aging, which organized the NIH effort this year. The day's events, by institute, featured:

NIDA—Students broke into two teams to compete in a Brain Derby, a quiz-show that tested their knowledge about how drug abuse affects the brain. "The idea is to get the kids thinking and trying to apply what they've learned in school about drug abuse," said NIDA's Dr. Roger Sorensen, watching as a team huddled together to brainstorm an answer.

NIAAA—Students slipped Fatal Vision goggles on to experience firsthand how alcohol can distort coordination and balance at an Alcohol and Brain Nonsense session. But first, Dr. Ivana Grakalic provided an overview of how alcohol is processed by the body. "Sometimes the students ask so many questions I can barely get through the presentation," she said. She watched as students wearing the goggles awkwardly stumbled



Top:

NIA's Dr. Suzana Petanceska uses a model brain to describe memory function to students from the Jewish Primary Day School of the Nation's Capital.

Below:

Students from Blessed Sacrament School, Washington, D.C., take turns holding a preserved human brain.



and weaved while trying to navigate a short walkway. "The goggles disrupt eye/muscle coordination, allowing the students to experience what a drunk person does. It makes a big impression."

NIMH—Students learned how the brain controls perception as they viewed a variety of optical illusions in the Wonders of the Brain presentation. "We want the kids to be aware of how powerful the brain is and if you practice bad habits, such as abusing drugs and alcohol, it can impair how your brain works and your perceptions," said NIMH fellow Candace Corbin.

NINDS—Night of the Living Brain topics ranged from sleep patterns in the animal world (dolphins sleep with half a brain so they can continue to surface for air) to how the brain stem sends signals to the spinal cord to shut muscles down during REM sleep to prevent humans from acting out their dreams. "The point is to get kids engaged in neuroscience," said Dr. Dan Stimson. "We especially want them to make the connection that sleep is vital to learning."

NIA—Dr. Suzana Petanceska handed around a brain model while explaining the possible connection between healthy brain aging and the choices students make about diet, exercise and learning. "You can think of the brain as a high-performance, gas guzzling, super snazzy car," she told the students. Explaining that the brain's 100 billion plus neurons consume a fifth of the body's energy, she encouraged them to fuel their "high-end" brains with nutritious food, plenty of sleep and a lifelong habit of learning new things. She described Alzheimer's disease pathology and possible links to such risk factors as obesity and diabetes. 1

PROGERIA

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otide mutation in a gene called LMNA (pronounced like one of the proteins it makes, “lamin A”). NIH director Dr. Francis Collins headed one of the two labs that discovered the mutation in 2003, and his lab continues to study the disease today.



Dr. Mark Kieran of Children's Hospital Boston discusses the challenges of conducting clinical trials with progeria patients.

The 2-day workshop, partially funded by NHLBI and NIH's Office of Rare Diseases Research, featured a panel of affected families who described daily life with progeria and answered questions from the audience.

Progeria Research Foundation medical director Dr. Leslie Gordon delivered a keynote address looking back at past accomplishments and ahead to the challenges of drug development and the possibility of gene or stem cell therapies. Gordon launched the foundation after her son was diagnosed with progeria

in 1998 and has been credited with establishing the resources and pulling together the top researchers needed to make progress in this exceptionally rare disease.

The workshop also included presentations from two teams conducting the world's first clinical trials for progeria treatment. Dr. Mark Kieran and his team at Children's Hospital Boston discussed the challenges of designing non-placebo-controlled trials with such a small population of patients as well as the process of characterizing the disease, including observations of the children's weight, teeth, skin, bones and blood vessels. In 2009, Kieran received a \$1.7 million “Grand Opportunities” grant from NHLBI and the NIH Office of the Director to conduct the team's third trial, which is testing a combination of three drugs.

Dr. Nicolas Lévy followed up with preliminary results from the two-drug clinical trial his team is conducting in Marseille, France.

On the “bench” side of the spectrum, Northwestern University cell biologist and longtime NIH grantee Dr. Robert Goldman chaired a session that delved into the basic science of progeria. He described the critical interplay between basic and clinical science in understanding and treating the disease. On the one hand, he said, because progeria disrupts a lamin protein found in cell nuclei, the disease offers “entirely new insight into nuclear structure and function” as well as chromatin organization and gene expression.



Twelve-year-old Hayley Okines (r) and her mom, Kerry, during the family panel

At the same time, he added, having a body of research already established on lamins when progeria was first linked to the LMNA gene allowed the progeria research community to hit the ground running.

“If it weren't for the NIH and NSF and a few other government agencies fostering and encouraging basic science, the drug trials would not be where they are today,” Goldman said. “We have to thank the government for allowing [basic researchers] to pursue our untargeted research studies in the area of proteins like lamins.”

“Understanding the treatment of any disease relies on basic research,” added NCI senior investigator and fellow workshop advisory board member Dr. Tom Misteli. “I think we're going to see more of this in the future—as more disease genes are being identified, all of a sudden you can tap into the knowledge that's generated from basic research.”

At the workshop, Misteli spoke about high-throughput screening his lab is conducting to find a small-molecule drug that would selectively block progeria's faulty gene splicing and stop production of the mutated protein.

Other highlights included presentations by former NHLBI director Dr. Elizabeth Nabel, now president of Brigham and Women's Hospital, whose NIH intramural lab is wrapping up investigations into the nature of the children's cardiovascular disease and its relationship to the cardiovascular disease millions of people experience as they age; and NIA grantee Dr. Judith Campisi, who is exploring the connection between cellular senescence in progeria and natural aging. 🗨️

Three NIH'ers Elected to American Academy of Arts and Sciences


Three NIH scientists are among the 229 leaders in the sciences, the humanities and the arts, business, public affairs and the nonprofit sector who have been elected members of the American Academy of Arts and Sciences.

They are Dr. G. Marius Clore (top, r), chief, protein nuclear magnetic resonance section, Laboratory of Chemical Physics, NIDDK; Dr. Gary Jan Nabel (middle, r), director, Vaccine Research Center, NIAID; and Dr. Michael Marc Gottesman (below, r), NIH deputy director for intramural research and chief, Laboratory of Cell Biology, NCI.



The new fellows join one of the world's most prestigious honorary societies. A center for independent policy research, the academy celebrates the 230th anniversary of its founding this year.

Also included in this year's class are film director Francis Ford Coppola, actors John Lithgow, Denzel Washington and Steve Martin, jazz saxophonist Theodore Walker "Sonny" Rollins, the presidents of Dartmouth, Georgetown, Notre Dame, Tulane, Northwestern and Northeastern universities and the Archbishop of Canterbury.

Established in 1780 by John Adams and other founders of the nation, the academy undertakes studies of complex and emerging problems. The new class will be inducted at a ceremony on Oct. 9 at the academy's headquarters in Cambridge, Mass. 

Birnbaum Gives 2010 Spirit Lecture at NIEHS

To celebrate Women's History Month 2010 and to recognize the contributions of women in science, NIEHS turned to one of its own to deliver the ninth annual Spirit Lecture—Dr. Linda Birnbaum, director of NIEHS and the National Toxicology Program.



PHOTO: STEVE MCCAWE

Birnbaum spoke about her life and work during a recent presentation titled "You Can Have It All," cosponsored by the NIEHS Diversity Council and Women Scientists Assembly. Along with discussing their professional interests and concerns, Spirit Lecture speakers typically address the theme of women in science balancing the needs of self, work and family. The lecture series began in 2002.

"What for me is synonymous with 'spirit' is fun," Birnbaum said. "I've always done things that I enjoy, fulfilling my love of science, keeping involved with the community and, of course, my family." She reflected on her passion for the love of her life, for her profession and for her family, as well as the challenge of making time for the important things in life—even when that meant putting her career on hold temporarily.

"Enjoy what you do with a passion," Birnbaum told her audience. Surround everything you do with passion, and life turns out pretty good. If you're not having fun, you'd better be doing something else."

With the same level of energy and enthusiasm she brought to her personal narrative, Birnbaum turned to her work as NIEHS/NTP director, pursuing improvements in public health locally, nationally and globally. She described the institute's successes and ongoing efforts to raise "awareness of the linkages between the environment and health" and to help scientists and citizens "think [more carefully and consistently] about research from a multi-stakeholder perspective."—Eddy Ball

Plain Language/Clear Communication Awards Ceremony, May 26

NIH will celebrate writers and their products at the NIH Plain Language/Clear Communication Awards ceremony on Wednesday, May 26 at 9 a.m. in Masur Auditorium, Bldg. 10.



Author Jeff Howe

Each year a highlight of the awards event is a presentation from the unique perspective of a writer. This year the internationally acclaimed author of *Crowdsourcing* and contributing editor to *Wired* magazine, Jeff Howe, will speak at the ceremony. Before coming to *Wired*, Howe was a senior editor at *Inside.com* and a writer for the *Village Voice*. In his 15 years as a journalist, he has written for *Time*, *U.S. News & World Report*, the *Washington Post*, *Mother Jones* and numerous other publications.

The Office of Communications and Public Liaison in the Office of the Director sponsors the Plain Language/Clear Communication initiative and the awards program. Each year a top award winner is additionally recognized with an NIH Director's Award. Sign language interpretation will be provided. For other reasonable accommodation, call (301) 443-8650. For more information about the plain language initiative, visit www.nih.gov/clearcommunication/plainlanguage.htm.



YOUNGSTERS

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Above, l: The “face painting lady” Michelle Johnson pals around with a young visitor before picking up her brushes.

Above, r: A group of children and parents learn how contaminant runoff affects the environment.

Below, l: Heidi Leung (daughter of Kwanyee Leung, NIAID) and Alexander Moore (son of Ann Puderbaugh, FIC) play in the grass in front of Bldg. 1. The two have been friends since they attended NIH preschool together.

Below, r: Wensen Liu (son of Xueqiao Liu, NIAID) enjoys his balloon hat, replete with a fish on a fishing pole.

PHOTOS: ERNIE BRANSON, VALERIE LAMBROS



designed to promote recycling, teach responsible disposal of common household items and encourage children and families to plant trees and vegetables in their own environments, the day set records across the board.

The R&W reports that it collected nearly 200 old VHS tapes, 10 boxes of spent batteries, 8 boxes of old cell phones, 5 trash bags full of tennis shoes (the soles can be recycled to make athletic track surfaces) and about 100 pairs of eyeglasses.

The Office of Research Facilities reports that in addition to collecting extraordinary amounts of plastic, aluminum and paper products as part of Earth Day events in front of Bldg. 1, about 5 pounds of food compost were collected that ordinarily would have ended up in the trash. Pleasantly surprised families discovered how much of their lunches’ packaging really could be recycled. Additionally, more than 1,200 NIH employees pledged to use reusable water bottles more regularly instead of plastic bottles to reduce recycling costs.

ORF’s tree seedling giveaway was a tremendous success, with 1,800 trees—ranging from dogwoods and redbuds to pines and indigo—going to new homes. Preparing that many seedlings was a team effort, said Danita Broadnax of the Environmental Quality Branch, and she extended an open invitation to anyone who wants to help prepare or hand out trees at future events.

Many people put their young seedlings in one of thousands of yellow and orange bags distributed by the Office of Equal Opportunity and Diversity

Management, which organized the Take Your Child to Work events. Some of the most popular activities provided hands-on demonstrations and interactive participation for children, including the long-standing “Fantastic Voyage through the Department of Laboratory Medicine” exhibit, which has been hosted by the Clinical Center for the past 5 years.

Between learning what their parents do at work every day and learning about the environment we all live in, children went home with brains brimming with new information.

“We’re all becoming more aware of living environmentally conscious, and this event was a big step in that direction,” Broadnax said.





Above: Jeremy Sha experiments with a Geiger counter while his mom, Wenqin Xu (NIMH), and Lawrence Koenig (OD) look on.



Above: Janet Mfon (OD) and her daughter, Ekaeto, pose on the Bldg. 31 patio.

Below: The Klukosky family, Frank (NEI) with daughters Sarah and Katelyn, visits with Ben Franklin (aka Barry Stevens).



What Was IT?

Here are the clues and answers to this year's IT contest. We told you that IT's in the neighborhood. Pawpaws are native to much of the eastern U.S. including Maryland.

We said that development and the clearing of mature trees have eliminated IT from many urban areas. Development activities have removed native pawpaws and mature trees of other species that provide needed shade for pawpaws, which are part of the understory vegetation.

IT is so well known that it has a town named after IT—you can get there by driving exactly 104.40 miles from the NIH campus. That would be the town of Pawpaw located in Morgan County, W.Va.

Leaves, bark, twigs and seeds contain acetogenins—compounds that can be used to make organic insecticides. Acetogenins in extracts from pawpaws have also been shown in laboratory studies to have effectiveness against multi-drug resistant cells.

Among those who guessed correctly in this year's IT contest were: Chanteshea Bulluck, NIAMS; Dr. Vernon Anderson, NIGMS; Cynthia Moore, NHLBI; Dr. W. Ernest Lyons, NINDS; Judith Swan, NCI; and Jeff Forbes, NIAMS.



Top:

A cluster of six unripe pawpaw fruits hang from a branch. There are green oval leaves behind the fruit.

Bottom:

A pawpaw plant in bloom



Shown at the inaugural BRAINS ceremony are (from l) NIMH deputy director Dr. Philip Wang; Dr. Kathleen Anderson, deputy director of NIMH's Division of Developmental Translational Research; Dr. Nicholas Sokol of Indiana University; Dr. Sean Deoni of Brown University; Dr. Stephen Gilman of Harvard University; Dr. Consuelo Walss-Bass of the University of Texas, San Antonio; Dr. Daniel Dickstein of Brown University; Dr. Daniela Kaufer of the University of California, Berkeley; Dr. Linda Wilbrecht of the Ernest Gallo Clinic and Research Center, UCSF; and NIMH director Dr. Thomas Insel.

NIMH Presents First 'BRAINS'

The first seven recipients of NIMH's new BRAINS—Biobehavioral Research Awards for Innovative New Scientists—gathered recently for a presentation ceremony and an opportunity to describe the work these grants will support. The awards are designed to fund early career scientists carrying out innovative, exploratory research aimed at critical knowledge gaps identified by NIMH.

Inspired by the success of the NIH Director's Pioneer Awards and New Innovator Awards, BRAINS provides up to \$1.625 million over 5 years. The focus of this year's awardees is neurodevelopment.

"While these awards fund specific projects, they are truly an investment in specific people," said NIMH director Dr. Thomas Insel.

The hope is that these awards will give early-stage investigators enough flexibility to take risks on tough problems that are central to neuroscience and mental illness, he noted, but not yet well understood, such as the nature and development of neural circuits and the genetic factors and environmental influences that both shape and disrupt them.

The seven recipients gave brief overviews of each project:

▲ Sean Deoni of Brown University School of Engineering is using cutting-edge imaging techniques to track white matter development—a basic element of brain connectivity—and changes in structure and function in children up to age 5.

▲ Daniel Dickstein of Brown University School of Medicine is using behavioral testing, brain scans and genetic data to identify biomarkers that could help predict the development of bipolar disorder.

▲ Stephen Gilman of Harvard University is looking at social and economic influences early in life (including prenatal effects) in the development of depression.

▲ Daniela Kaufer of the University of Califor-

nia, Berkeley, is using rats to study how stress in early life can alter neurodevelopment, including the generation of new neurons and neural connections.

▲ Nicholas Sokol of Indiana University is using a fruit fly model to study the molecular foundations of neuroplasticity and how development of the brain is altered by internal influences, such as hormones, and external events.

▲ Consuelo Walss-Bass of the University of Texas Health Science Center at San Antonio is looking at the role of the immune system in brain development and behavior in adolescence.

▲ Linda Wilbrecht of the Ernest Gallo Clinic and Research Center at the University of California, San Francisco, is studying how experience interacts with development to sculpt brain circuits and shape behavior in the age range analogous to adolescence in mice.

Keynote speaker Dr. Ronald Dahl of the University of Pittsburgh, chair of the BRAINS study section, drew from his own research on adolescence to illustrate that there are key windows in development that represent periods of vulnerability for mental health; a better understanding of the changes in the brain that underlie the functional and behavioral transitions in these periods can serve as a guide for future interventions.

BRAINS will continue as an annual program for NIMH. The institute received 45 applications for the 2010 competition, which focused on gap areas specified in the NIMH strategic plan.

"We keep hearing from early career investigators that the future looks bleak," said Insel. "BRAINS is intended as a pledge to our most promising young scientists that we will support them to follow their most innovative ideas." ①



Speakers at the recent ORWH seminar included (from l) Dr. Maureen Cooney, Dr. Suzanne Fenton, Dr. Jose Russo and Dr. Brenda Eskenazi.

Environmental Exposures Affect Women's Health, Researchers Say

Exposure to chemicals in the environment may lead to adverse health effects for women, say researchers. The topic was discussed at ORWH's Women's Health Seminar Series, "Environmental Exposures and Women's Health," held recently in Lipsett Amphitheater. Several NIH and extramural researchers presented their findings on various studies of chemical exposure.

Dr. Linda Birnbaum, NIEHS director, opened the seminar by video, outlining NIEHS research on environmental exposures. "NIEHS-funded researchers are investigating metabolic pathways by which estrogenic endocrine disruptors cause adverse health effects." As a result of these studies, Birnbaum said, NIEHS established a grants program that brings together citizens and researchers to exchange information on links between exposure and disease.

In addition to disease burden, exposure to endocrine-disrupting chemicals (EDCs) at critical periods in fetal development can cause abnormal mammary gland development, said Dr. Suzanne Fenton of NIEHS. She shared her findings in rat models, along with other studies, that reported adverse long-term consequences of embryo exposure to chemicals such as bisphenol A (BPA) and phthalates. To help limit further public exposure to EDCs, she noted, "The National Toxicology Program is routinely including early-life exposure in chronic exposure bioassays" to determine the long-term effects of fetal EDC exposure.

EDCs were also found to have adverse effects on women's capacity to reproduce. Dr. Maureen Cooney of NICHD found that dioxins and pesticides affected puberty, with studies demonstrating a steady decrease, since 1973, in the age at which girls begin menarche and breast development. Further research, she noted, would require "recruiting an appropriate study population, capturing both the exposure and the outcome at the right time." She concluded by calling for more studies and encouraging women to minimize their exposure to EDCs.

Dr. Brenda Eskenazi of the University of California, Berkeley, conducted a study of female survivors of a 1976 industrial chemical explosion in Seveso, Italy. Results showed that the younger the girls were at the time of exposure, the higher their risk of early menarche and development of breast cancer later in life. She encouraged future studies to "assess exposure *in utero* and consider other factors such as body mass index."

Dr. Jose Russo of Fox Chase Cancer Center studied the effects of BPA on prenatal and prepubertal rats. The results showed that prepubertal exposure to BPA may be related to premenopausal breast cancer and prenatal BPA exposure may be related to postmenopausal breast cancer. He further noted, "The selective genomic effect in the mammary gland points toward the need to avoid the exposure of young girls to BPA." He concluded by calling for more studies on BPA and breast tissue to determine the causes of cancer.

To view a video of the seminar, go to <http://videocast.nih.gov/PastEvents.asp?c=11>. 📺

NINDS Partners with U. Va. to Train Neurosurgeons

By Shannon E. Garnett

NINDS recently partnered with the University of Virginia to establish a neurosurgical residency program. The 7-year program, which will enroll the first resident in July of this year, is intended to serve as a model for training neurosurgeon clinician-investigators.

"This is the first accredited surgical residency training program sponsored by the NIH," said Dr. Robert Lembo, deputy director of the NIH Office of Clinical Research Training and Medical Education. "More importantly, it is an effort to train highly competent neurosurgeons who are going to be board-certified clinicians clearly capable of performing translational research."

The program—which recently received approval from the Accreditation Council for Graduate Medical Education—is also unique in that it is the first time NIH has collaborated with the University of Virginia to provide training, said Lembo.

Based on an innovative clinical and research curriculum, the program is designed to equip residents to be outstanding clinicians and independent researchers upon graduation. It will emphasize clinical diagnostic skills, technical competency and empathetic doctor-patient relationships and will at the same time develop trainees into world-class neurosurgeon investigators with independent research projects and funding upon completion of residency.

"Residents will conduct their research with mentoring from investigators across the NIH campus," said Dr. Russell Lonser, chief of the NINDS Surgical Neurology Branch. "They will also operate on patients as part of their training."

Eligible medical students will be hand-picked to participate in the program by NIH based on their commitment and aptitude for becoming leading neurosurgeon-investigators. Those selected will spend 2½ years in a broad-based clinical neurosurgery education program at U. Va., which will allow them to define research questions and discover special interests. Residents then will spend the next 3½ years at NIH developing their research skills and clinical abilities and conducting research. This period will be followed by a 1-year term of chief residency, a standard requirement for neurosurgeons at U. Va.

Although NIH offers a wealth of both under- and post-graduate training opportunities for students, this neurosurgical residency program—which provides accredited training to students directly out of medical school—is only the second of its kind on campus, according to Lembo. The other is NCI's residency training program in anatomic pathology.

milestones



Dr. Dennis F. Mangan

Mangan Joins ORWH as Advisor

Dr. Dennis F. Mangan recently joined the Office of Research on Women's Health as a senior research advisor working on the analysis and evaluation of research projects supported by ORWH.

He is no stranger to NIH, however. As an assistant professor at the University of Rochester, Mangan led a program in oral microbiology and immunology prior to engaging in advanced research in molecular biology in the lab of Dr. Sharon Wahl in the NIDCR intramural program. He studied the role of programmed cell death in monocyte/macrophage homeostasis. Between 1992 and 2006, he worked in the NIDCR extramural program as a program director in various infectious disease research programs. In 1994, he created one of the first email listservs at NIH to keep the investigators in his portfolio apprised of new programs, funding opportunities and technical assistance in preparing grant applications. Many at NIH remember that he was a passionate advocate for the creation of a Human Microbiome project (now a Roadmap initiative) and research on the beneficial effects of bacteria on humans.

Mangan left NIH in 2006 to become associate dean for research at the University of Southern California School of Dentistry, where he helped faculty and students enhance their research programs and increase funding opportunities from government, industry and foundation sources. He has returned to NIH to join ORWH's 20th anniversary initiative to identify the most promising areas of research that will advance women's health and the study of sex and gender differences in medicine over the coming decade.

Mangan has a Ph.D. in microbiology from West Virginia University and postdoctoral training in cellular immunology at the University of Michigan. When not at work, he enjoys golf, hiking and training dogs.

NIH's Roll-Mecak Wins Searle Award

Dr. Antonina Roll-Mecak, head of the NINDS cell biology and biophysics unit, recently won a \$300,000 grant from the Searle Scholars Program. The endowment—which is annually

awarded to 15 young investigators conducting research in the chemical and biological sciences—provides \$100,000 of research support to its recipients each year for 3 years.

"We are extremely pleased that the Searle program has selected Antonina for this well-deserved honor that not only provides her with tremendous support but also recognizes her promise as a young scientist and the value of her innovative research," said NINDS director Dr. Story Landis. "She is only the second NIH intramural scientist to win the award since the Searle program began 30 years ago."

Roll-Mecak has been at NIH for only 7 months and holds a primary appointment in NINDS with a joint appointment in NHLBI. She is currently awaiting the completion of renovations for her new laboratory, which focuses on intracellular organization and movement, with a primary interest in microtubules.

Specifically her group is trying to learn more about two kinds of enzymes: those that take apart and restructure the microtubule network (called microtubule severing enzymes) and those that create diverse chemical changes on microtubule tracks (the tubulin tyrosine ligase-like family of proteins).

Microtubules are components of the cytoskeleton and serve as the structural "scaffold" or platform of all cells. They also are involved in many cellular functions including cell division, migration and tissue growth.

"This award is a validation of my research program and the approaches that I have decided to take in my new lab," said Roll-Mecak. Her work could have implications for many diseases including neurodegenerative disorders and cancers and may pave the way for future therapeutic interventions.

Roll-Mecak received her undergraduate degree in chemical engineering from the Cooper Union for the Advancement of Science and Art in 1996, and her Ph.D. in molecular biophysics from Rockefeller University in 2002. From 2003 to 2009, she conducted postdoctoral training with Dr. Ron Vale at the University of California, San Francisco. She joined NIH in 2009.

Each year the Searle Scholars Program invites more than 140 top U.S. institutions to nominate up to 2 early-career scientists to become scholars.—Shannon E. Garnett



Dr. Antonina Roll-Mecak



feedback

Have a question about some aspect of working at NIH? You can post anonymous queries at www.nih.gov/nihrecord/index.htm (click on the Feedback icon) and we'll try to provide answers.

Feedback: I have a concern about how fast some drivers fly through MLP-10 in the morning. Obviously, we all want to get to work on time, but some drivers speed through the garage so fast, it's frightening. Is there a posted speed for the garage? I can't remember ever seeing one, or even signs urging drivers to go slow. I'd like to know if there are any plans to ensure the garage is safe for all who use it.

Response from the Office of Research Services: The speed limits in all garages are being reviewed by the Division of Police and the Division of Amenities and Transportation Services. Once finalized, a uniform speed limit for each facility will be incorporated.

Currently, speed limit signs are posted at all entrances to multi-level parking garages including MLP-10 and some garages also have signs posted inside. Additional speed limit signs are ordered and will be installed inside MLP-10. Flyers will be distributed to motorists and electronic "Your Speed is ___" radar signs will be placed at key locations in the garage.

Drivers are also reminded that they also have an obligation to exercise "due care" while driving in any parking garage under Maryland state law (Maryland Transportation Law Section 21-504).

Feedback: Why is illegal parking not enforced more in the P3 parking area of Bldg. 10? Every day the same cars park directly under signs and in areas that say No Parking Anytime. Tickets get issued maybe once a month. As with taking bicycles into buildings (which is a direct safety violation) and smoking on campus (signs posted everywhere), violators always seem to get a free ride to do as they please.

Response from ORS: The NIH Police patrol all areas of campus and on occasion cite vehicles that are illegally parked. The police will increase their monitoring of the area and will take appropriate enforcement action (ticketing and/or towing) in the Bldg. 10 P3 parking garage to further discourage those who park illegally.

The Code of Federal Regulations (CFR) prohib-

its bringing bicycles into buildings. The NIH Police will enforce the code when witnessing or informed of a violation.

As for the smoking policy on the NIH campus, the police only have authority to enforce smoking prohibitions in areas that are covered by the CFR such as inside buildings and garages attached to buildings. In addition, until all collective bargaining agreements are re-negotiated, there will continue to be certain NIH staff who are allowed to smoke on the main campus as long as they abide by NIH's previous smoking policy.

Feedback: Every day, workers at the NIH main campus must scan their ID badges to gain access to their jobs. What kind of information is collected by the scanners? What happens to the data once it is processed? Is it collected and stored? If so, for how long and for what purpose(s)? In this age of rampant identity theft, who has access to such information?

Response from the Office of Research Services: The badge readers are not scanners. They read information from the badge and check it against a secure database to allow or deny entry to campus, buildings or individual rooms. The only information collected is the badge ID number associated with the name displayed on the badge, the time of entry and the entry location.

This information is stored in a secure database and then archived and retained for a minimum of 3 years. Only a limited number of individuals involved in personnel security with the appropriate background clearances have access to the secure data. The information is released only in the event of a police investigation or an approved Freedom of Information Act inquiry.

Feedback: Why do we continue to run the escalators in Bldg. 31 that are right next to elevators? Given the cost of electricity and maintenance, and the environmental harm caused when we generate electricity, we should turn the escalators off.

Response from ORF: The Office of Research Facilities made a concerted effort to renovate the inoperable escalator in Bldg. 31 after repeated requests by employees to repair it and restore it to full operation. No doubt, the escalator consumes energy. ORF staff looked at installing motion detectors but determined the starting and stopping would only cause more stress to the motor over time and increase the likelihood of another breakdown. Instead, taking into consideration the occupants of the building who use the escalator now and those who repeatedly requested it be restored, ORF has decided it will run the escalator during peak hours only. Facility staff will shut down electrical operation from 6 p.m. to 7 a.m. on weekdays and entirely on weekends.

As with any proposal to change the current operations of a building, ORF will ensure that building occupants are notified well in advance by email and signage and welcome any feedback on this decision. 🗨️



In work with mice, a team of researchers has pinpointed the location of bone-generating stem cells in the spine, at the ends of shins and in other bones.

NIH Study Confirms Location of Stem Cells Near Cartilage-Rich Regions in Bones

Working with mice, a team of researchers has pinpointed the location of bone-generating stem cells in the spine, at the ends of shins and in other bones. The team also has identified factors that control the stem cells' growth. The research was conducted at NIH and other institutions.

"Identifying the location of bone stem cells and some of the genetic triggers that control their growth is an important step forward," said NICHD acting director Dr. Alan E. Guttmacher. "Now, researchers can explore ways to harness these cells so that ultimately they might be used to repair damaged or malformed bone. Also, studies of this stem cell population could yield insight into the formation of bone tumors."

Researchers have long known that stem cells from bone marrow give rise to bone cells and to red and white blood cells. The current study is the first to identify the location of bone stem cells in the adult mouse skeleton. The findings appear online in the *Proceedings of the National Academy of Sciences*.

The findings open up two avenues for additional research. Studies to identify the chemical signals that initiate the formation of new bone tissue could lead to new techniques for regenerating damaged or injured bone. Similarly, studies of the chemical events that trigger the initial stages of tumor formation may lead to ways to prevent or treat bone tumors.

NIH Study Offers Hope to Patients with Nonalcoholic Steatohepatitis

A daily dose of a specific form of vitamin E significantly improved the liver disease nonalcoholic steatohepatitis (NASH), according to a study funded by the National Institute of Diabetes and Digestive and Kidney Diseases. Results were published Apr. 28 online in the *New England Journal of Medicine*. In addition, Actos (pioglitazone), a drug used to treat diabetes, also improved many features of NASH but was associated with weight gain.

NASH is a chronic liver disease that is linked to weight gain and obesity and can lead to cirrhosis, or scarring, liver cancer and death. It resembles alcoholic liver disease but occurs in patients who drink little or no alcohol. NASH can occur in children, the elderly, normal-weight and non-diabetic persons. The disease is believed to be caused by abnormal

metabolism of fats, which increases levels of oxidants, compounds that transfer oxygen in the liver. This disease affects about 3 to 4 percent of the U.S. population, leads to death from cirrhosis and increases the risk of death from cardiovascular disease. There is currently no approved treatment for NASH.

"This is an important landmark in the search for effective treatments for NASH," said Dr. Pat Robuck, director of the clinical trials program in NIDDK's Division of Digestive Diseases and Nutrition.

Scientists Find Genes That Influence Brain Wave Patterns

Scientists have identified new genes and pathways that influence an individual's typical pattern of brain electrical activity, a trait that may serve as a useful surrogate marker for more genetically complex traits and diseases. One of the genes, for example, was found to be associated with alcoholism.

A report of the findings by researchers at the National Institute on Alcohol Abuse and Alcoholism appeared online Apr. 26 in the *Proceedings of the National Academy of Sciences*.

"This important advance sustains our hope for the potential of genome-wide association techniques to further the study of complex genetic disorders such as alcoholism," said NIAAA acting director Dr. Kenneth Warren. Genome-wide association studies allow researchers to rapidly scan the complete set of DNA of many individuals to find genetic variations associated with a particular disease or condition.

Expression of Proteins Linked to Poor Outcome In Women with Ovarian Cancer

Scientists have established the presence of certain proteins in ovarian cancer tissues and have linked these proteins to poor survival rates in women with advanced stages of the disease. The study, led by scientists at the National Cancer Institute, appeared in *Cancer* online, Apr. 19.

The proteins in question belong to the nuclear factor kappa Beta (NF- κ B) family. NF- κ B controls many processes within the cell including cell survival and proliferation, inflammation, immune responses and cellular responses to stress.

"This study sheds light on the distinctive genetic features of the NF- κ B pathway and may provide targets for the development of novel therapies for ovarian cancer," said lead investigator Dr. Christina Annunziata, associate clinical investigator, Medical Oncology Branch.



The phone numbers for more information about the studies below are 1-866-444-2214 (TTY 1-866-411-1010) unless otherwise noted.

Dietary Carbs vs. Fat – Overweight

NIH is looking for overweight, healthy adults, 18 to 45 years old, to volunteer in a clinical research study. If you are interested in learning about how dietary carbohydrates versus fat affect metabolism and how the brain perceives food, call us. The study includes two inpatient visits of up to 13 days followed by a 12-week lifestyle modification program including weight loss counseling, prescribed diet and exercise program. Refer to study 09-DK-0081. Compensation is provided.

Januvia Study

Volunteers are needed for a study examining the immune function in healthy volunteers given short-term treatment of sitagliptin. Investigators wish to determine if and how sitagliptin alters immune function. If you are 18 years or older and healthy, consider participating in this study. All study-related tests are provided at no cost. Compensation is provided. Refer to study 09-DK-0055.

Dry Eyes Study

Do you have dry eyes? If your eye doctor has diagnosed you with ocular surface disease, commonly known as dry eye, and you are 18 years or older, you may be eligible to participate in a study with the National Eye Institute. This study will compare visual function when reading computerized versions of eye questionnaires on the web and when completing paper versions of eye questionnaires. Participants will be required to travel to NIH for an outpatient visit lasting approximately 2 hours and will receive an eye examination. Refer to study 08-EI-0135.

Macular Degeneration Study

We are seeking patients with wet age-related macular degeneration. The Food and Drug Administration has approved the use of Lucentis for treatment of this ailment. The National Eye Institute is looking for volunteers 50 and older with the ailment to participate in a study exploring the different responses to Lucentis. Participants will be required to travel to NIH on an outpatient basis for the initial evaluation and subsequent monthly examinations. Refer to study 08-EI-0103.

Diet Induced Obesity

Healthy volunteers are needed for a study investigating the reasons why some individuals maintain their weight. The study looks at the response to different diets in relation to metabolism. Consider participating in this study if you are 30-50 years of age, have a body mass index between 18.5-23.0, and have a stable weight (less than 2 percent change in the last 6 months). All study-related tests and meals are provided at no cost. Compensation is provided. Refer to study 09-DK-0238.

Study of Neck Pain

Are you a healthy individual with neck pain for 3 months or less? If you are between the ages of 18 and 65, you may be able to participate in a neck pain study and receive a comprehensive cervical musculoskeletal examination. Healthy volunteers are also needed. Email NeckPainStudy@gmail.com or call (301) 451-7514. Refer to study 02-CC-0245.



NIDDK director Dr. Griffin Rodgers (front, c) welcomes new council members (from l) Judy M. Hunt, Dr. Anil K. Rustgi, Dr. Gregory J. Gores and Dr. Francine R. Kaufman. Jane Holt is not shown.

PHOTO: ERNIE BRANSON

Five Join NIDDK Advisory Council

NIDDK director Dr. Griffin Rodgers recently welcomed five new members to the National Diabetes and Digestive and Kidney Diseases Advisory Council.

Dr. Gregory J. Gores holds the Reuben R. Eisenberg professorship and serves as chair of the gastroenterology and hepatology departments at the Mayo Clinic in Rochester, Minn. His research interests include liver cell death, especially apoptosis and the mechanisms by which cancer cells escape cell death.

Jane Holt co-founded and currently serves as co-president of the National Pancreas Foundation, which awards research grants and provides support to patients. She also helps to lead the Digestive Diseases National Coalition, an advocacy organization focused on raising awareness and changing public policy related to digestive diseases.

Judy M. Hunt is on the board of the Juvenile Diabetes Research Foundation International, the largest charitable funder of diabetes science. She previously held positions with the American Diabetes Association and other diabetes organizations.

Dr. Francine R. Kaufman is chief medical officer at Medtronic Diabetes, which develops insulin pumps and other technology for diabetes care. A pediatrician, she helped to steer NIDDK's National Diabetes Education Program starting in 2000, chairing that program from 2008 to early 2010.

Dr. Anil K. Rustgi holds the T. Grier Miller professorship and serves as chief of gastroenterology at the University of Pennsylvania School of Medicine. His research focuses on oncogenes and tumor suppressor genes in gastrointestinal cancers.

NIGMS Workshop Helps Postdocs Prepare For Careers

A diverse group of 150 postdoctoral researchers gathered in Natcher auditorium recently for a career development workshop focused on preparing them for the next stage of their research careers. The event, geared toward individuals who are underrepresented in the biomedical and behavioral sciences, featured talks by leading scientists on making the right career choice, finding a good institutional fit, applying for a position, succeeding in the job interview and seminar, negotiating a start-up package, establishing a lab, finding and being a mentor and applying for a grant. Participants also heard tips about balancing research and other commitments as well as information about non-academic scientific career paths.

"Transitioning to the first independent position is challenging for all young scientists, but for postdocs who are from groups that are underrepresented in the biomedical or behavioral sciences, it can be even more daunting. The purpose of the workshop was to cover a wide range of topics that postdocs need to help them succeed in the transition," said Dr. Judith Greenberg, director of NIGMS's Division of Genetics and Developmental Biology and workshop organizer.

"Holding this workshop was a natural extension of our long-standing commitment to research training, career development and increasing the diversity of the biomedical research workforce," she added.

"This conference gave me advice about getting my lab set up and about getting a productive research project going," said Dr. Namandje Bumpus, a postdoctoral fellow at the Scripps Research Institute. "It also gave me a chance to interact with peers and find mentors from NIH and other academic institutions. I was able to meet a lot of people and hear a lot of points of view and perspectives—and I think that I'll incorporate those perspectives and suggestions into what I do in the future."

The workshop included opportunities for participants to interact with speakers and NIGMS staff, including structured "networking lunches." "I gained a lot of insight on things that aren't necessarily discussed in an academic setting," said Dr. Michelle Foster, a postdoctoral fellow at the University of Cincinnati. "It was helpful learning about the negotiation aspects about setting up a new lab. I now feel less nervous about this upcoming transition in my life."



Dr. Marion Sewer (l), associate professor of biology at Georgia Tech, talked to meeting participants about applying for academic positions. At right are panelists (from l) Dr. Ruben Gonzalez, assistant professor of chemistry at Columbia University; Dr. Peter Agre, director of the Malaria Research Institute at Johns Hopkins University; Dr. Sally Kornbluth, the James B. Duke professor of pharmacology and cancer biology at Duke University; and Dr. Tawanda Gumbo, associate professor of infectious diseases at the University of Texas Southwestern Medical Center.

PHOTOS: BILL BRANSON

"The feedback from the participants was extremely positive," said Greenberg. "One participant summed it up by saying, 'It was an invaluable experience, with an overwhelming amount of great information from the presenters. This conference has equipped me with a lot of contacts and information on how to succeed in my new tenure-track position that I will start this fall. As a result, I am changing my game plan for how I will approach my new position.'" —Jilliene Mitchell

May Is Healthy Vision Month

The National Eye Institute is sponsoring Healthy Vision Month (HVM), a national eye health observance designed to elevate vision as a health priority for the nation. HVM is dedicated to raising awareness about the importance of comprehensive dilated eye exams in maintaining good eye health. Using the theme, Your Eyes are the Windows to Your Health, NEI will be engaging in a wide variety of outreach efforts to encourage Americans to schedule an eye exam.

Comprehensive dilated eye exams play a critical role in the preservation of sight, as they can help detect eye diseases in their early stages before any noticeable vision loss occurs. Eye care professionals can also detect any refractive errors such as myopia (nearsightedness), hyperopia (farsightedness), presbyopia and astigmatism, which can easily be corrected with glasses or contact lenses.

To find resources to promote eye health and to learn more about what NEI is doing for HVM, visit www.healthyvision2010.nei.nih.gov/hvm/.

